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# THE IMPACT OF PRIOR LEARNING ASSESSMENT ON STUDENT SUCCESS AND COMPLETION: A SYSTEMATIC LITERATURE REVIEW

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**Abstract.** Prior Learning Assessment (PLA) has gained substantial traction within post-secondary institutions across the United States in recent years as a mechanism to enhance accessibility and affordability for adult learners. The increased interest in PLA affirms the notion that learning, and competency gained through experience, training, and certifications acquired outside of post-secondary institutions may meet learning outcomes and competencies established by colleges and universities. Extensive research has been conducted on PLA methods and practices; however, there is a distinct gap in systematic evidence regarding how PLA interventions affect student success and completion in post-secondary education. This study addresses this gap by systematically reviewing the impact of PLA on these outcomes using the PRISMA framework. The search yielded 44 studies from 2010 to 2018. A total of 10 studies meeting the inclusion criteria were selected for full-text review, bibliometric analysis, and chronological review. The findings show a positive impact of PLA, with students benefiting from higher graduation rates, shorter completion periods, and reduced tuition costs. Notably, Black, and Hispanic students experienced the most substantial positive effects. However, the limited number of studies in this area underscores the need for additional research to delve deeper into the factors that contribute to the success and growth of PLA's programs, specifically, the role of college counselors in advising adult students on PLA options needs further study.

Keywords: prior learning assessment; student success; completion; graduation

# I. INTRODUCTION

Prior Learning Assessment (PLA) has gained substantial traction in recent years as a mechanism to enhance accessibility and affordability for adult learners. PLA allows students to earn credit for learning acquired outside of post-secondary institutions, such as through work experience, skills training, non-credit classes, industry certifications, and similar knowledge acquisition opportunities.

Globally, countries such as South Africa, Australia, and New Zealand developed policies and frameworks (CAEL, 2007) for the implementation of Prior Learning Assessment (PLA) within higher education; however, in the United States, these efforts are not nationalized, but rather individualized. Many postsecondary institutions in the United States have adopted and implemented various models of PLA independently. The increased interest in adopting PLA could be attributed to the potential benefits that PLA provides, such as the potential to improve student access, affordability, and graduation. Additionally, several post-secondary institutions in the United States that have successfully implemented PLA such as Capella University, and others have benefited from improved enrollment resulting from student participation in PLA (Plumlee & Klein-Collins, 2017).

Over the past 30 years, interest has grown in research related to PLA. Specifically, extensive research has been conducted on the topic of PLA from a development perspective focusing on PLA models and implementation, including portfolio assessment, standardized tests, essays, and interviews (Cherrstrom et al., 2021); however, there is a scarcity of systematic literature studying the impact of PLA on student success in the United States in post-secondary institutions. In addition to the gap which is the focus of this study regarding how PLA interventions affect student success and completion in post-secondary education; there are several other gaps in the current understanding related to PLA. One gap is the issue of PLA credit transferability and articulation between postsecondary institutions, and how the credit transfer with the student. Another gap is related to the role of institutional policies and practices in supporting and guiding PLA students, for instance, the role of college counselors in advising adult students on PLA options. There is a need for more research to examine how college counselors can best support adult students who are interested in pursuing PLA.

The goal of this study is to map the body of information already in existence and to ascertain the current research status regarding the influence of prior assessment learning on student achievement and completion in the United States.



This study is informed by a conceptual framework that views PLA as a potential intervention to improve student success. Where PLA serves as the independent variable and student success and completion are the dependent variables. The framework draws on theories of learning and student success, such as transfer of learning theory (Perkins & Salomon, 1992), self-determination theory (Ryan & Desi, 2000), and expectancy-value theory (Wigfield & Eccles, 2000).

Transfer of learning theory (Perkins & Salomon, 1992) asserts that students can transfer knowledge and skills learned in one context to another. PLA allows students to demonstrate that they have already learned the material covered in a course, even if they learned it outside of a formal educational setting.

Self-determination theory (Ryan & Desi, 2000) focuses on the importance of autonomy, competence, and relatedness for human motivation. PLA can help students develop these qualities by giving them a sense of control over their education and by allowing them to demonstrate their competencies.

Expectancy-value theory (Wigfield & Eccles, 2000), asserts that students' motivation is influenced by their expectations of success and the value they place on the task. PLA can help to increase students' expectancy of success by providing them with a clear path to graduation and by rewarding them for their prior learning.

The pursuit of a college degree in the United States is associated with numerous benefits, including expanded career opportunities, job security, and higher earning potential, as college graduates tend to earn more and face lower unemployment rates than high school graduates. However, the challenges of time and financial resources present barriers to many students seeking higher education.

Prior Learning Assessment (PLA) emerges as a solution to these challenges, allowing individuals to gain academic credit for knowledge acquired outside traditional classrooms. Research has shown that PLA positively influences student success and completion rates, especially among adult learners. Studies by Klein-Collins (2010, 2011, 2014) and Chappell (2012) illustrate that PLA accelerates degree attainment and saves both time and money, with particular benefits for underrepresented groups. Moreover, PLA's impact is evident in higher graduation rates and academic performance, as demonstrated by Hayward and Williams (2015), Jackson (2016), Starr-Glass (2016), and Rust and Ikard (2016). The type of PLA utilized can vary, with portfolios and exams being the most effective, but emphasizing individual student needs (Klein-Collins & Hudson, 2018). This systematic literature review seeks to provide a comprehensive analysis of the existing research on PLA's influence on student success and completion, addressing themes, synergies, and gaps in the academic literature. It is in intended for post-secondary scholars, policymakers, and practitioners who are interested in understanding the benefits of implementing PLA, reviewing the empirical data currently available, and exploring PLA as a mechanism to provide more access to higher education to adult learners. This study would also be of interest to registrars and

administrators exploring ways to increase enrollment by recruiting PLA-eligible adult learners.

This study is the first systematic review to examine the impact of PLA on student success in the United States. The findings of this review provide valuable insights into the potential of PLA to improve student access, affordability, and success. This research is particularly important in light of the scarcity of systematic literature reviews on this topic and the growing demand for post-secondary education, and the need to improve equity in post-secondary outcomes.

#### II. METHODOLOGY

Following Page et al. (2021) Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines, a systematic literature review was carried out. Figure 1 is a PRISMA diagram that shows how studies were identified, screened, and excluded from the review. The diagram begins with the total number of records identified through the literature search. These records were then screened for eligibility, and the number of records that met the inclusion criteria is shown. The remaining records were excluded.

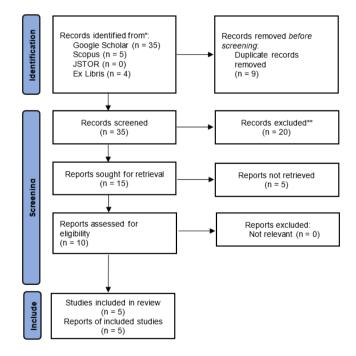


Fig. 1 PRISMA Diagram

We conducted the search using four databases, Google Scholar, Scopus, JSTOR, and Ex Libris. The conceptual framework informed the search strategy for the systematic review in several ways to reflect the key concept (prior learning assessment) as well as the impact of PLA (success, completion, and graduation). The search focused on the following keywords within the title of the records "prior learning" AND "success" OR "completion" OR "graduation".



Harzing's Publish or Perish software was utilized to conduct the search on both Google and Scopus; however, JSTOR and Ex Libris were accessed directly. The search parameters on all four databases were the same. The search results yielded 44 records. At this point, no extra filters or constraints were imposed. The search results were exported as Excel files for sorting and filtering. The title keywords were used to generate a list of sources.

The records were then screened for relevance based on the inclusion and exclusion criteria listed in Table 1. A total of 10 studies were included in the systematic review.

TABLE I INCLUSION AND EXCLUSION CRITERIA

#	Criteria	Inclusion	Exclusion
1	Title	"Prior learning" AND	Topic keywords are not
	Keywords	"Success" OR	explicitly included in the
		"completion" OR "graduation"	study title
2	Language	English	Not English
3	Population	Adult learners attending post- secondary institutions	K-12 students
4	Availability	Full-text available	Full-text not available
5	Type of	Journal articles and	Blogs, magazines, videos,
	Study	grey literature	essays

## A. Inclusion Criteria

The eligibility criteria were developed to guarantee that the papers included in the review were high-quality and pertinent to the research question. The inclusion of peer-reviewed articles, and grey literature including, conference proceedings, dissertations, reports and studies by professional associations, and policy papers ensures that a wide range of sources were considered. The study population was limited to adult learners attending post-secondary institutions pursuing college-level courses. The requirement that sources be in English and open access ensures that the review is accessible to a broad audience. The keywords "prior learning" AND "success" OR "completion" OR "graduation" were used to identify studies that specifically examined the impact of prior assessment learning on student success.

# B. Exclusion Criteria

The exclusion criteria were developed to remove studies that were not relevant to the research question or of low quality. The exclusion of irrelevant studies ensures that the review focuses on the specific topic of interest. The exclusion of non-open access studies ensures that the review is accessible to a broad audience. The exclusion of studies that are not in English ensures that the review is comprehensible to a broad audience. The exclusion of studies that do not contain the keywords "prior learning" AND "success" OR "completion" OR "graduation" in the title of the record ensures that the review only includes studies that are directly relevant to the research question.

## C. Extraction and Data Analysis

The author, title, citations, year, publisher, and abstracts were extracted. After the application of the inclusion and exclusion criteria, the studies were grouped and synthesized based on the type of source (e.g., journal, dissertation, policy paper, or report) and as well as the methodology used. For example, studies that used quantitative methodologies were grouped, as were studies that used qualitative methodologies. Within each group, the studies were further synthesized by the specific type of prior assessment learning that was examined (e.g., credit for prior learning, placement testing, or portfolio assessment). This approach allowed for a more nuanced understanding of the impact of prior assessment learning on student success, as well as the different ways in which this impact can be measured.

Two steps were used in the selection process for the systematic review: screening and full-text review.

The first step involved screening for duplicate records. Automation tools were used to help with the identification of duplicates. The Excel spreadsheet was sorted alphabetically, and conditional formatting was used to highlight any records that were duplicates. This method ensured that duplication was assessed based on two conditions. A total of 9 records were identified as duplicates and were excluded at this stage, leaving 35 records to be reviewed for inclusion.

The next level of screening involved screening the titles and abstracts of the remaining 35 records to identify those that met the inclusion criteria. A total of 20 records were excluded at this stage, leaving 15 records for retrieval. A total of 5 records were identified as not being open-access records and were therefore excluded at this stage, leaving 10 records to be reviewed for inclusivity.

The second step involved reviewing the full text of the 10 records to ensure that they met the inclusion criteria. This was also done by one reviewer. Out of the original 44 records extracted, a total of 34 records were excluded, leaving 10 records for inclusion in the systematic review.

## III. RESULTS AND DISCUSSION

## A. Studies by Publisher

Figure 2 shows the number of publications on PLA by publishers. Most of the studies were published by the Council for Adult and Experiential Learning (CAEL), with 5 studies. This suggests that CAEL is a leading organization in the field of PLA and has a strong track record of publishing research on this topic. All other publishers included in this review published only one study meeting the inclusion criteria.

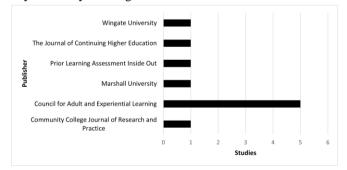


Fig. 2 Studies by Publisher

The studies by these publications focus on the effect of PLA on academic results such as program or completion rates



as well as time to graduation. Their research also examines the factors that influence PLA participation, such as the cost savings of PLA, and the availability of PLA programs.

## B. Annual Publications

Figure 3 shows the publications by year. The number of studies published on PLA specifically focusing on success or completion has been minimal in the past 13 years; at a rate of one publication per year between 2010 and 2018, except for 2016 where 3 studies were published.

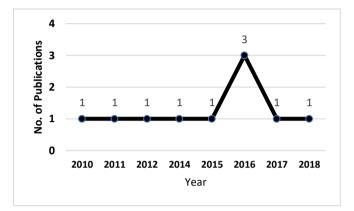


Fig. 3 Number of Studies by Year

## C. Citations

In the context of bibliometric analysis, as revealed in Figure 4, the most prominently cited author within this review is Klein-Collins with 3 publications published solely by her, as well as 2 other publications that were co-authored by her. The first study by Klein-Collins (2010) garnered a substantial 148 citations. This noteworthy citation count underscores the significant influence of her scholarly contributions in the field. Specifically, Klein-Collins' seminal work titled "Fueling the Race to Postsecondary Success: A 48-Institution Study of Prior Learning Assessment and Adult Student Outcomes" published in 2010 by the Council for Adult and Experiential Learning, emerges as the most comprehensive quantitative investigation on PLA to date. This groundbreaking study encompassed an extensive student population of 62,475 individuals drawn from 48 diverse educational institutions. Its findings conclusively demonstrated that students engaging with PLA exhibited enhanced academic outcomes, particularly concerning graduation rates and persistence, when compared to their adult counterparts pursuing alternative pathways. Importantly, it is noteworthy that all other studies examined within this systematic review consistently cited Klein-Collins' pivotal research.

Furthermore, among the other notable authors within the field, we observe high citation counts for several scholarly contributions. Hayward and Williams (2015) were cited 33 times for their study, which focused on community college graduation rates for PLA students. Additionally, Rust and Ikard's (2016) study, investigating the impact of PLA on student outcomes, garnered 14 citations, while Plumlee and Klein-Collins' research, which delved into the influence of

Financial Aid for PLA on student cost savings and enhanced persistence and completion, earned 10 citations. Chappell's work on PLA's role in degree completion amassed 9 citations. Klein-Collins and Hudson's investigation into the efficacy of diverse PLA methods on completion and persistence received 7 citations. Lastly, Jackson's study focusing on the effectiveness of PLA within community colleges to improve persistence, GPA, completion, and time to completion was cited 2 times. These citation patterns underscore the enduring scholarly interest and influence of these seminal works within the broader discourse on Prior Learning Assessment.

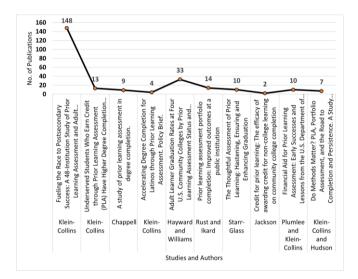


Fig. 4 Citations by Study and Author

The literature map in Figure 5 displays the studies included in the systematic review in chronological sequence. The oldest study, Klein-Collins (2010), is at the top of the map. The lines show which studies cited each other. Klein-Collins (2010) was cited by all the other studies included in the review. This suggests that it is a seminal study that has had a significant impact on the field of PLA research. In addition to Klein-Collins's (2010) study, Hayward and Williams (2015) also cited Klein-Collins' (2011) study. The map also shows that Starr-Glass (2016), and Rust and Ikard (2016) cited Chappell (2012) and Klein-Collins (2010 and 2011). Suggesting that they built on the findings of Klein-Collins and Chappell.

No other studies within the map cite each other. This suggests that the studies are relatively independent of each other.



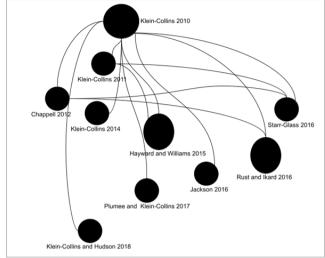


Fig. 5 Literature Map

## D. Chronological Analysis

A common thread emerges as the data presented in the studies that are included. PLA leads to higher success and completion rates for adult learners, many of whom can complete their studies more quickly and for less money.

Klein-Collins (2010) investigated the effects of PLA on student outcomes at dozens of two-year and four-year institutions that included private, public, non-profit, and forprofit institutions. Data from 62,475 students were used in the study, which discovered that PLA students fared academically better than other adult students. PLA students completed degrees at a higher rate (56%) compared to non-PLA students (21%) within seven years. This study is viewed as a seminal study.

In 2011, Klein-Collins continued to build on the data generated from the 2010 study. The 2011 study found that PLA can help adult learners avoid the need to take courses on subjects they already know well, which can save them both time and money. Additionally, accessing PLA can be a motivational factor that encourages students to persist toward degree completion. For seven years, the study tracked the academic development of the participants. In comparison to other adult students, the statistics showed that students receiving PLA credit had higher academic performance in terms of graduation rates and perseverance. Depending on the quantity of PLA credits granted to the students, many PLA students also decreased the length of time necessary to get a degree by up to 21.3 months. The greatest positive impact was on black non-Hispanics who were able to reduce time to completion by a maximum of 48% (21.3 months) followed by Hispanic students who were able to finish their degrees in 35% (13.2 months) less time.

Chappell (2012) looked into how PLA helped adult community college students at Mountwest Community and Technical College (MCTC) complete their postsecondary degrees. According to the study, students who filed for PLA credits to speed up their degree completion were more likely to do so, which comports with Klein-Collins' findings (2011). This was especially true for students applying for PLA credits from the military, or through institutional or state credit evaluations. According to Chappell's research, students who applied for PLA credits tended to be older male students; however, unlike studies by Klein-Collins, Chappell's research found no relationship between the application of PLA credits, and race or ethnicity. However, this could be attributed to the fact that 79.9% of MCTC students were white non-Hispanic, as disclosed in the study, with only 10% of students identified as belonging to a minority group.

In 2014, Klein-Collin's study focused on the impact of PLA on accelerating degree completion for Latinos. Her study's results reported that Latinos who received credit through PLA earned four-year degrees at a rate that was eight times higher than that of non-PLA Latinos. This study demonstrated that Latinos who earn college credit for their prior learning increase their likelihood of degree completion. The study also found that the problem is that PLA is not always well-promoted or accessible, especially at associate degree institutions.

Hayward and Williams (2015) utilized a quantitative study, to examine the graduation rates of PLA vs. non-PLA students at 4 community colleges with a combined sample size of 20,229 students. 8.5% were PLA students. The study found that graduation rates between PLA and non-PLA students varied markedly. 28.4% vs. 11.8%. PLA students earned a degree at more than double the rate of non-PLA students.

Jackson (2016) used a mixed-method approach to investigate the potential of Credit for Prior Learning (CPL), a type of PLA to improve student outcomes. The sample size for this study included 13,408 students who were awarded CPL as well as students who had not been awarded CPL. The data was also collected from focus group interviews. CPL recipients were able to bypass courses they did not need and complete their studies sooner. Jackson's data shows that students who earned CPL typically had higher completion rates (29.53%) than non-CPL students (10.6%). Additionally, students who had been awarded CPL reported feeling a sense of encouragement and motivation to complete their studies, which aligns with the findings of Klein-Collins (2011) and Chappell (2012).

Starr-Glass (2016) conducted a qualitative investigation into assessment methodologies and educational philosophies. The study contended that PLA serves not only as a means to expedite degree acquisition and reduce associated expenses, but also enhances the quality of undergraduate education by affording students the opportunity to integrate their individual experiences and expertise into their formal educational trajectories. Moreover, PLA has the potential to foster selfefficacy, academic involvement, and sustained commitment. Given the current fiscal challenges facing both students and the higher education sector, Starr-Glass advocated for a deliberate reinvigoration of PLA within academic institutions.

In another case study, Rust and Ikard (2016) utilized a quantitative method using a paired samples t-test to look into how Middle Tennessee State University's (MTSU) PLA portfolios affected student results. The study included a sample size of 2,941 participants. The study found that PLA students utilizing portfolios had higher graduation rates (54%) and experienced a cumulative grade point average (GPA) increase of 0.84.



Plumlee and Klein-Collins (2017) investigated a Department of Education's experimental initiative aimed at learning how federal financial aid could be used towards PLA-associated expenses. Twenty-seven institutions participated in the experiment; however, at the time of the study, only five institutions had fully implemented PLA programs. The study found that the experiment yielded a favorable outcome that reaffirmed prior studies on the positive impact on PLA. PLA students experienced cost as well as time savings, and the institutions reported higher completion rates.

The last study in this review was conducted by Kelin-Collins and Hudson (2018) and it focused on determining whether the type of PLA utilized to award credit to adult learners made a difference. Their research used data from 26,000 students located at four post-secondary institutions. Their study confirmed prior findings regarding the benefit of PLA, but more importantly, their data demonstrated that the two most impactful PLA methods were portfolios as well as exams; however, the study also iterated that the PLA method should be considered based on individual student needs and background. While portfolios and exams may have the highest positive outcomes, for some students' other methods would be more appropriate.

The findings of the systematic review support the conceptual framework by demonstrating that PLA has a positive impact on student success, as evidenced by higher graduation rates, shorter completion times, and reduced tuition costs. The findings also suggest that PLA is particularly beneficial for Black and Hispanic students. Therefore, the findings of the systematic review provide strong support for the conceptual framework that views PLA as a potential intervention to improve student success. However, the findings simultaneously challenge the conceptual framework in some ways. For example, the findings suggest that the impact of PLA varies depending on the specific PLA model and the implementation context. This suggests that more research is needed to identify the factors that contribute to the success of PLA programs.

One possible explanation for the positive impact of PLA on student success is that PLA students are more motivated and engaged in their studies. Another possible explanation is that PLA students are better able to transfer their prior learning to new academic settings. However, more research is needed to identify the specific mechanisms through which PLA leads to improved student outcomes.

## E. Practical Significance

The findings of this study have several practical implications for post-secondary institutions and policymakers. The findings suggest that PLA can be an effective intervention for improving student success. Post-secondary institutions should consider implementing PLA programs or expanding their existing PLA programs. Policymakers should consider supporting PLA programs through funding and other initiatives.

The data also suggest that PLA is particularly beneficial for Black and Hispanic students. Post-secondary institutions and policymakers should focus on developing and implementing PLA programs that are specifically designed to meet the needs of these and other underserved populations.

## F. Theoretical Implications

Several theoretical implications emerge from this study. The findings support the theory that transfer of learning is possible outside of formal educational settings. This suggests that students can learn valuable knowledge and skills through work experience, volunteer work, and other life experiences.

Additionally, the findings provide support for the theory that self-determination theory is important for student success. PLA can help students develop autonomy, competence, and relatedness, which are all important factors for motivation and engagement in learning.

Finally, the findings provide support for the theory that expectancy-value theory is important for student success. PLA can help to increase students' expectancy of success by providing them with a clear path to graduation and by rewarding them for their prior learning.

#### G. Limitations

The studies included in this review had several limitations. First, some of the studies used small or localized sample sizes, and several studies utilized convenience samples based on the same dataset and results generated by Klein-Collins (2010). Consequently, the results of these studies may not apply to a larger student population. Second, some of the studies did not include controls for other factors that could have influenced the results, such as students' academic ability or socioeconomic status.

Additionally, the systematic review itself had several limitations. The search terms were limited to only the titles of studies. The search may have yielded additional studies if the abstracts were also searched for the keywords.

Lastly, the studies that were reviewed had varying degrees of quality. Seven of the ten studies included were grey literature, and only three studies were peer-reviewed journal articles. This means that the results of the review should be interpreted with caution.

#### **IV. CONCLUSIONS**

The results of this systematic review indicate that prior learning assessment may enhance student success and completion rates. Over the course of the seven years covered in this review, PLA students were consistently found to have greater graduation and persistence rates than other students. Additionally, PLA students were more likely to finish their education sooner and at a lower cost.

The positive impact of PLA on student success is due to several factors. First, PLA can help students avoid courses that they are competent in. This can save students time and money, and it can also help them to stay motivated and on track to graduate. Second, PLA can provide students with a sense of accomplishment and validation for their prior learning. This can boost their confidence and help them to succeed in their academic studies. Third, PLA can help students to customize their educational path and meet their individual needs and goals. PLA can be a valuable tool for improving student success and



completion rates for adult learners. Therefore, higher education institutions should make PLA more accessible and affordable to students. Clear and transparent policies for PLA, as well as accurate information about the benefits of PLA, should be provided to new and current students.

There are several governmental efforts currently in place to encourage the adoption of PLA, but these programs have not been fully utilized, and implementation tends to be slow. The state and federal government should continue to support, and incentivize the adoption and successful implementation of PLA programs. Successful implementation could be measured by assessing increases in student completion and transfer rates, as a result of PLA.

The scarcity of literature regarding the impact of prior learning assessment on student success and completion also suggests that more research is needed. Future research should also look into the elements that PLA uses to improve student achievement, such as the impact of college counselors who are well-versed in PLA on advising adult students on PLA options and their eligibility based on each student's unique background.

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